

ON SOME INDIAN DERBIDAE (HOMOPTERA).

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I have recently received for study a small collection of Indian fulgorids belonging to the Zoological Survey of India. The present paper deals with the Derbidae.

This is an interesting family of mostly small and delicate insects found in forest lands. The eggs are at present unknown. The young live under bark and in rotten wood; what their food is is not at present known. There are over ninety genera and nearly five hundred species described. The species generally have a limited geographical distribution, especially the island forms, but this cannot always be recognized unless the genitalia be examined, as the species are often difficult to recognize by any other character.

The types have been returned to the Indian Museum, cotypes have been retained by the describer. Measurements are from apex of head to anus and from base to apex of one tegmen.

DERBINAE.

CENCHREINI.

Herpis turae, sp. nov.

(Fig. 1.)

Male. Length 3 mm.; tegmen 5 mm.

Length of vertex equal to width at base, apex narrower than base, lateral margins thick and granulate, base angularly emarginate. Face fairly narrow. Sub-antennal process distinct but not very large.

Pygofer produced angularly below anal segment. Anal segment large; anus slightly distad of middle, in dorsal view slightly narrowed beyond anus to the truncate apex. Genital styles large, long, comparatively narrow, margins subparallel, apex rounded, inner margin slightly sinuate, outer margin with a narrow border turned inward, two small processes near base, one pointed and curved, the other smaller with truncate apex.

Head, thorax, legs and genitalia light brown, abdomen reddish.



TEXT-FIG. 1.—Lateral view of male genitalia of *Herpis turae*, sp. nov.

Tegmina stramineous, veins yellowish, all the apical cells slightly fuscous. Wings slightly fuscous with brown veins.

Female. Length 4.4 mm.; tegmen 5.4 mm. The subantennal process is larger than in the male. In colouration similar to male. Pregenital plate longer than broad, hind margin evenly produced from the side to middle, the apex of the production rounded, the produced portion forming more than half the length of the plate.

Described from one male and one female from above Tura, Garo Hills, Assam, 3500 to 3900 ft., July, 1917 (*S. Kemp*); and one female from Shillong, Khasi Hills, Assam, elevation 5500 to 6400 ft., August, 1915 (*S. Kemp*).

I have not seen the type-species of *Vekunta* Dist., but the figures of it show the subcostal cells short and there is no subantennal process. The present species of *Herpis* differs from such species as *Herpis vulgaris* in having the vertex much longer and the lateral margins broad and granulate, as in *Vekunta*. Its division into two subgenera may be convenient.

Vekunta flavipes, sp. nov.

Female. Length 3.6 mm.; tegmen 5.4 mm.

Subantennal process forming a very small flange below the antennae. Pregenital plate very short at sides, the middle half produced into a large process, the sides at first gradually curved then nearly straight with the apex rounded. Anal segment slightly longer than broad, anus near base, apex subtruncate. Genital styles fairly large, projecting beyond process of pregenital plate.

Very dark brown or black; as antennae, face and clypeus light brown, legs yellow, hind margin of abdominal sternites yellow. Tegmina dark brown or nearly black, yellowish along costal margin, a small yellow spot at stigma.

Described from one female from Tura, Garo Hills, Assam, 3500 to 3900 feet elevation (*S. Kemp*, August, 1917).

OTIOCERINI.

Lyricen vagans, sp. nov.

(Fig. 2.)

Male. Length 3 mm.; tegmen 5 mm.

The vertex and face slightly wider than in the type-species and the cubitus forks slightly lower down, otherwise quite typical.

Light brown, darker over lateral portions of pronotum and mesonotum, face, genae, clypeus and front coxae. Tegmina fuscous with darker markings in middle of clavus, fork of Cu, middle of M and fork of Sc and R; veins darker at base of median sectors and apical cross-veins.

Lateral margins of pygofer widely angularly produced below anal segment; medio-ventral margin angularly produced with a pair of curved spines just within the pygofer (these may pertain

to aedeagus). Anal segment short, broad, slightly narrowed at apex which is slightly rounded, anus near apex. Genital styles large, long, curved dorsad on apical third, apex rounded; outer margin about middle produced into a wide angle, distad of that the margin is roundly excavate with a curved spine arising from the bottom of the emargination, inner margin produced into a small, quadrate process about middle.

Female. Length 4 mm.; tegmen 7.3 mm.

The hind margins of abdomen red. The tegmina lighter than the males, with the mottling more distinct.

Pregenital plate broader than long, hind margin angularly produced to middle, the sides of the production slightly excavate, apex rounded and slightly lipped, in lateral view flat.

Described from two males and two females from above Tura, Garo Hills, Assam, elevation 3500 to 3900 ft., August, 1917 (S. Kempf).

The genus has hitherto been known only from Fiji.

Kamendaka (*Eosaccharissa*) *albipennis*, sp. nov.

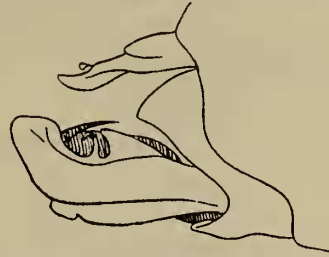
(Fig. 3.)

Male. Length 2 mm.; tegmen 2.7 mm.

In profile the vertex and face meeting at an angle of about 95, face curved, especially the apical half.

Stramineous thickly encrusted with white waxy secretion; a dark fuscous mark on genae in front of eyes continued over pronotum; clypeus and front legs slightly fuscous. Wings thickly encrusted with white waxy secretion, slightly fuscous at apex of media, in the middle of tegmina and at apex of clavus. Wings white with waxy secretion, hyaline with yellow veins.

Ventral margin of pygofer produced into a long, narrow angular process nearly half the length of genital styles. Anal segment long, narrow, apical third turned ventrad at right angle to base, anus at base of the apical third, apex narrow with a small emargination making it minutely furcate. Genital styles long, narrow, apex obliquely truncate and slightly emarginate, outer margin slightly produced just basad of middle with a small curved spine distad of the produced part; inner margin slightly sinuous.



TEXT-FIG. 2.—Lateral view of male pygofer of *Lyricen vagans*, sp. nov.



TEXT-FIG. 3.—Lateral view of male genitalia of *Kamendaka* (*Eosaccharissa*) *albipennis*, sp. nov.

Described from one male specimen from Barkuda Island, Chilka Lake, Madras Pres., July, 1916 (*F. H. Gravely*).

The species of the three subgenera that constitute this genus are mostly obscurely coloured and difficult to recognize unless the genitalia be examined. The genitalia of none of the Indian species have been described.

***Niceta kanarae*, sp. nov.**

Female. Length 5 mm.; tegmen 8 mm.

In lateral view head produced in front of eye slightly more than the width of the eye, the width of the head greater than the depth. Antennae cylindrical not reaching to apex of head, a small curved knob at base.

Pregenital plate wider than long, very short at sides, hind margin gradually and angularly produced to middle; the sides of the production slightly sinuous and the apex slightly rounded.

Stramineous; fuscous over genae in front of eyes and over pronotum behind eyes, and over mesonotum. Tegmina hyaline, slightly opaque with waxy secretions fuscous over apical half of clavus, over cubitus from the fork and over median apical cells, a little mark in radial cell at cross-vein and in apical cells, veins yellow. Wings hyaline, veins yellow, slightly opaque with waxy secretion.

Described from one female specimen from Castle Rock, North Kanara District, Bombay Pres., October, 1916 (*S. Kemp*).

***Phra amplificata* Distant.**

Phra, Distant, *Muir, Ent. Mo. Mag.* 1918, p. 242.

One female specimen from Castle Rock, North Kanara District, Bombay Pres., October, 1916 (*S. Kemp*).

I have already remarked upon the type of this insect and the difference in the figures of the head. The present specimen agrees with the type-specimen and is apparently the same species.

***Mysidiides fuscinervis*, sp. nov.**

(Fig. 4.)

Male. Length 2 mm.; tegmen 5 mm.

Light brown; mesonotum darker. Tegmina hyaline, slightly opaque with waxy secretion, with slight fuscous marking over base and clavus, two or three marks in costal cell, over Cu 1, base of median sectors spreading out into the median cells, over apical cells; the veins darker where the membrane is fuscous. Wings slightly fuscous with brown veins.

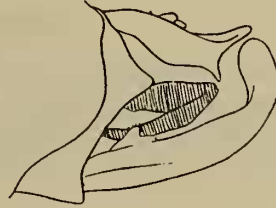
Lateral margins of pygofer produced into a broad angle below anal segment. Anal segment comparatively short, broad, lateral margins slightly flattened, produced into a small thin process before apex; anus about middle, broadest distad of anus, apex

broad, slightly emarginate in middle making it broadly and slightly bilobed. Genital styles long, narrow, curved on apical third, a small projection on outer margin near base.

Female. Length 2.9 mm.; tegmen 6 mm.

In colour similar to male. Anal segment small, subtriangular, anus at base; pregenital plate wider than long, posterior margin widely angularly produced from sides to middle, the sides of the production slightly excavate; in lateral view straight, hind margin not turned ventrad.

Described from a male and female (types), from Talewadi, near Castle Rock, North Kanara District, Bombay Pres., October, 1916 (*S. Kemp*); and two males and two females from Castle Rock, October, 1916 (*S. Kemp*).



TEXT-FIG. 4.—Lateral view of male genitalia of *Mysidiides fuscinervis*, sp. nov.

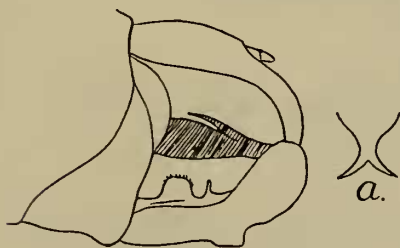
Mysidiides furcata, sp. nov.

(Fig. 5.)

Male. Length 1.8 mm.; tegmen 5 mm.

Dark brown; lighter over middle of mesonotum, legs, lateral portions of pronotum and genital styles. Tegmina hyaline, slightly opaque with waxy secretion, veins yellow except Cu 1, fork of Cu and first (basal) median section, radial cross veins and base of second median sector and apical cross-veins which are fuscous, the fuscous spreading out into the membrane, fuscous at apex of subcostal cell and over apical cells.

Lateral margins of pygofer rounded, not angularly produced.



TEXT-FIG. 5.—Lateral view of male genitalia of *Mysidiides furcata*, sp. nov. a. Apex of anal segment.

Anal segment large, in lateral view curved ventrad, anus about middle, in dorsal view gradually narrowing to near apex where it is produced into a furcate apex. Genital styles large, apical half curved dorsad, apex rounded, outer margin with two processes near base, the basal one subquadrate and broader than long, the distal one small and thin, inner margin with a subquadrate projection about middle.

Female. Length 2.7 mm.; tegmen 6 mm.

In colouration similar to male. In lateral view the pregenital plate concave, the posterior margin slightly and angularly produced in middle and turned ventrad, a minute emargination in the middle.

Described from one male and two females from Castle Rock, North Kanara District, October, 1916 (*S. Kemp*).

Mysidioides, sp.

One female specimen from above Tura, Garo Hills, Assam, August, 1917 (*S. Kemp*), in colouration similar to *M. furcata*, but having the pregenital plate flat and not turned ventrally at apex. In the absence of the male I refrain from naming it.

DERBINI.

Zeugma fuscinervis, sp. nov.

Female. Length 5 mm.; tegmen 11 mm.

Characteristic of the genus; face fairly narrow.

Head and pronotum light brown, darker over vertex and down the middle of face and clypeus and in the middle of pronotum; mesonotum and tegulae dark brown or black, lateral carinae lighter; abdomen dark brown; legs lighter brown. Tegmina hyaline slightly yellowish, slightly fuscous over apical and hind areas, veins dark spreading into membrane, a small dark spot at base of cubitus, another in radial cell and one at fork of cubitus. Wings hyaline, slightly fuscous, veins brown.

Pregenital plate large, in lateral view well rounded, middle third of posterior margin produced into a plate broadly conical in outline, a keel runs from apex to a little beyond the base of produced portion. Anal segment short, ventral edge produced beyond apex with a small patch of short stout hairs at each angle of apex.

Described from one female from above Tura, Garo Hills, Assam, 3500 to 3900 ft., July, 1917 (*S. Kemp*).

RHOTANINI.

Sumangala delicatula Distant.

One male specimen from Castle Rock, North Kanara District, October, 1916 (*S. Kemp*).

The figure of this species has no cross-vein between the media and cubitus (really the base of first or basal median sector) otherwise this specimen agrees with the figure and description.

Levu iridipennis? Melichar.

Rhotana iridipennis, Melichar, *Hom. Faun. Ceylon*, p. 62.

One male specimen from above Tura, Garo Hills, Assam, 3500 to 3900 ft., August, 1917 (*S. Kemp*). The specimen is not in very good condition, but it appears to agree with the original description.

ZORAIDINAE.

ZORAIDINI.

***Pamendanga pallata* (Distant).**

(Fig. 6.)

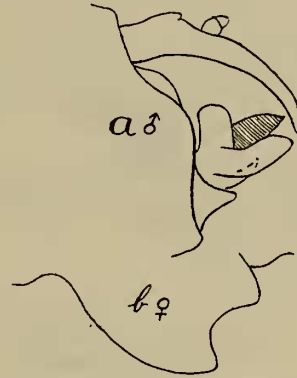
Phenice pallata, Distant, *Ann. Mag. Nat. Hist.* (8) VIII, p. 639 (1911);
Faun. Brit. Ind. Rhynchota VI, appendix, p. 64 (1916).

Two males and four females from above Tura, Garo Hills, Assam, 3500 to 3900 ft., August, 1917 (S. Kemp).

This was originally described from a female from Kumaon, W. Himalyas.

The male is coloured similarly to the female. The male pygofer is sunk within the preceding segment, ventral margin slightly and roundly produced. Anal segment large, anus before middle, evenly curved ventrad, in dorsal view widest at base, gradually and slightly narrowed to the rounded apex. Genital styles small, short, slightly curved, apex rounded, at base on outer margin produced into a large, quadrate process, on inner margin into a stout pointed process.

In outline the pregenital segment in female roundly produced somewhat like a Phrygian cap.



TEXT-FIG. 6.—*Pamendanga pallata* (Distant).
 a. Lateral view of male genitalia.
 b. Lateral view of female pregenital plate.

***Zoraida brunnipennis*, sp. nov.**

(Fig. 7.)

Female. Length 5.3 mm.; tegmen 14 mm.; wing 6 mm. Antennae longer than face, cylindrical. Four cubital veins reaching hind margin; radial cell not very narrow, slightly widened distad of second median sector. Pregenital plate large, in lateral view concave, hind margin roundly produced and with a small cleft in the middle. Anal segment large, reaching to apex of styles, broadest at base, slightly narrowing to the rounded apex, anus at base.



TEXT-FIG. 7.—Dorsal view of female genitalia of *Zoraida brunnipennis*, sp. nov.

Brown; tegmina and wings hyaline, uniformly brown with brown veins.

Described from one female from Tura, Garo Hills, Assam, 1200 to 1500 ft., July, 1917 (S. Kemp).

Zoraida (Peggiopsis) kemp, sp. nov.

(Fig. 8.)

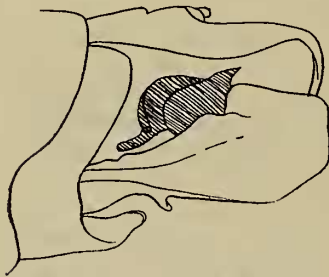
Male. Length 3 mm.; tegmen 8 mm.; wing 3·8 mm.

Antennae slightly longer than face, flat, broad. Radial cell not very narrow, slightly widened beyond cross-vein.

Stramineous inclined to salmon, more so over antennae and abdomen. Tegmina hyaline, slightly fuscous; costal, subcostal and radial cells fuscous; veins brown, apices of apical veins light.

Medio-ventral process of pygofer longer than broad, apex truncate, slightly narrower than base.

Anal segment large, anus before middle, in dorsal view narrow at base, slightly widened beyond anus then narrowed to the acute apex, the apical third turned ventrad. Genital styles large, narrow at base, considerably widened on apical half, apex truncate; outer margin considerably produced beyond middle. Aedeagus complex, not dissected out.



TEXT-FIG. 8.—Lateral view of male pygofer of *Zoraida (Peggiopsis) kemp*, sp. nov.

Described from two males from Mormugao, Portuguese India, September, 1916 (S. Kemp).